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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/655,026 | 09/05/2003 | Martin Hoheisel | 32860-000617/US | 6036 |
| 30596 | 7590 | 02/09/2005 | EXAMINER | |
| HARNESS, DICKEY & PIERCE, P.L.C. P.O.BOX 8910 RESTON, VA 20195 | | | HO, ALLEN C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2882 | |

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/655,026 | Applicant(s) HOEISEL ET AL. | |
| | Examiner Allen C. Ho | Art Unit 2882 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 16-23 is/are allowed.
- 6) ☒ Claim(s) 1,3-15 and 24-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

- (1) Paragraph [0054], line 5, both "6b" should be replaced by --6a--.

- (2) Paragraph [0057], line 2, "18" should be replaced by --14--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 11, 13-15, 31, and 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Wei *et al.* (U. S. Patent No. 5,231,655).

With regard to claims 11, 13-15, 31, and 33-35, Wei *et al.* disclosed an antiscatter grid/collimator for a radiation type, comprising: a base body (310) of predetermined geometry including transmission channels (420), the base body being formed from a first material which is substantially transmissive to the radiation type, wherein inner surfaces of the base body are coated in the transmission channel with a second material (330) which strongly absorbs the

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radiation type, and wherein the opposite surfaces of the base body bear a coating which is made from the second material (column 5, lines 42 - column 6, line 53).

4. Claims 1, 3-15, and 24-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Souchay *et al.* (U. S. Pub. No. 2003/0081731 A1).

With regard to claims 1, 6, 8-10, Souchay *et al.* disclosed a method for producing at least one of an antiscatter grid and collimator for a radiation type, formed from a base body (2) of predetermined geometry having transmission channels (12), comprising: setting the geometry of the base body; constructing the base body according to the set geometry by using a rapid prototyping technique through layer-wise solidification of a structural material, the structural material being substantially transmissive to the radiation type (paragraphs [0044]-[0051]); coating inner surface of the body in the transmission channels with a material (14).

With regard to claims 3-5 and 24-29, Souchay *et al.* disclosed the method as claimed in claim 1, wherein the coating is removed from the opposite surfaces by a chemical or mechanical processes (paragraphs [0055]-[0060]).

With regard to claim 7, Souchay *et al.* disclosed the method as claimed in claim 1, wherein the coating is formed by at least one of sputtering, vapor deposition, and electrolytic deposition (paragraphs [0052]-[0054]).

With regard to claims 11, 12, 13-15, and 30-36, Souchay *et al.* disclosed an antiscatter grid/collimator for a radiation type, comprising: a base body (2) of predetermined geometry including transmission channels (12), the base body being formed from a first material (polymer) which is substantially transmissive to the radiation type, wherein inner surfaces of the base body are coated in the transmission channel with a second material (14) which strongly absorbs the

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radiation type, and wherein the opposite surfaces of the base body bear a coating which is made from the second material (before the coating is removed).

Allowable Subject Matter

5. Claims 2 and 16-23 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to teach or fairly suggest a method for producing at least one of an antiscatter grid and collimator comprising constructing a negative mold by using a rapid prototyping technique though layer-wise solidification of a structural material under the action of radiation and producing at least a single replication of the molding in order to form the base body from a material which is substantially transmissive to the radiation type as claimed in claim 2.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho
Patent Examiner
Art Unit 2882

07 February 2005